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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/214,840      | 01/13/1999  | KLAUS-DIETER HAMMER  | 051009/0114         | 8132             |

7590 06/05/2002

FOLEY & LARDNER  
3000 K STREET NW SUITE 500  
PO BOX 25696  
WASHINGTON, DC 200078696

EXAMINER

HON, SOW FUN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1772

DATE MAILED: 06/05/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/214,840

Applicant(s)

HAMMER ET AL.

Examiner

Sow-Fun Hon

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Response to Amendment***

***Rejections Withdrawn***

1. The 35 U.S.C. 112, 2<sup>nd</sup> paragraph rejections in Paper # 10 (mailed 10/09/01) have been withdrawn due to Applicant's amendment in Paper # 12 (filed 03/11/02).
2. The 35 U.S.C. 103(a) rejections in Paper # 10 (mailed 10/09/01) have been withdrawn due to Applicant's clarification in Paper # 12 (filed 03/11/02) that the cellulase is only applied to the surface of the article.

***New Rejections***

***Claim Rejections – 35 USC § 112***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 7-8, 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The processes do not recite any active steps which describe them sufficiently to render them definite.
5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim

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does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 11 recites the broad recitation "fiber nonwoven", and the claim also recites "preferably of hemp fibers" which is the narrower statement of the range/limitation.

### ***Claim Rejections - 35 USC § 103***

6. Claims 1-9, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (US 6,156,562).

Cox has flat cellulose articles (cotton towels) (abstract) the surface of which cellulase is applied (column 1, lines 15-25) in the form of an aqueous solution of at least 0.02 % concentration (0.2 g per liter). After treatment with this process, the cellulase is inactivated permanently at a temperature of at least about 75 °C (column 2, lines 20-40, column 6, lines 55-68). Since cellulase acts on cellulose and its derivatives to hydrolyze cellulose (column 3, lines 35-40), it can be inferred that the cellulose can also be hydrated since mercerization of cotton, a standard treatment of cotton, produces hydrated cellulose.

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The cellulase aqueous solution is at a pH of 4.5 to 5.0, and the article is kept in the solution for 45 minutes at 57 °C (column 8, lines 10-25). It is within the realm of ordinary skill in the art to have varied the time of treatment in order to obtain the desired surface effect.

Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). In the instant case, claims 7-9 are directed to processes which appear to produce the same end-product, namely a cellulase-surface modified hydrated cellulose article.

7. Claims 10-11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox as applied to claims 1-9, 14-16 above, and further in view of Hammer et al. (US 5,262,211).

Cox teaches the cellulase treatment process to cellulose articles, but fails to teach the article as a food casing, the presence of reinforcing hemp fibers in the article, or the use of a fungicide to ensure the permanent absence of the cellulase after the treatment.

Hammer et al. has a hydrated cellulose food casing which contains hemp fiber reinforcement (column 3, lines 35-45) and teaches the application of fungicide to prevent the growth of molds responsible for the formation of the cellulase (column 5, lines 35-40).

Because Hammer et al. teaches that hydrated cellulose food casings require the application of fungicide to prevent the growth of molds responsible for the formation of the cellulase, it would have been obvious to one of ordinary skill in the art to have applied fungicide

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after the cellulase treatment in the process of Cox, in order to obtain a hydrated cellulose food casing with cellulase-modified surface that is free of cellulase after the treatment, and a method of doing it.

***Response to Arguments***


8. Applicant's arguments with respect to claims 1-11, 13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

874  
05/30/02

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

5/31/02